

## REMARKS

### Rejection Under 35 U.S.C. § 112

Claims 21-23 and 25-33 were rejected under 35 U.S.C. § 112, second paragraph, as failing to correspond in scope to the disclosure. The Examiner notes that that applicant has argued in its submission dated January 20, 2005 that the “event representation” of a financial instrument is a “time line of inter-related events that is specific to the static representation of the instrument, constitutes in its entirety the financial event structure of the instrument, and can always be exactly reproduced from the static representation of the financial instrument.” The Examiner stated that this statement differs from what is defined in the claims, because the Examiner did not view the specification as disclosing that the event representation, which comprises an event stream created by a process of event extraction, is sequential, or that the events are interrelated, per se.

Applicant submits that the event representation of an instrument would always implicitly include a timeline, as events would always have a date or date range associated with them. Applicant does note, however, that although a timeline is necessarily implicit in any collection of “events,” there is no specific requirement in the invention that events be either presented or processed sequentially.

Moreover, applicant submits that the disclosure of both a “timeline” and the inter-relatedness of events was in fact present in the application as originally filed, most particularly in the form of language in original claims 7 and 8, which have since been cancelled. These two cancelled claims read as follows:

7. A process implemented within means for processing financial data that transforms static representation of a financial instrument as created in accordance with claim 6 into a timeline of inter-related event objects that is specific to the given static representation.
8. The process of claim 7, wherein said timeline of inter-related event objects is composed of basic financial building blocks, known as “financial events or components”, and constitutes in its entirety the financial event structure or macro structure of that particular financial instrument.

Although cancelled, the claims as originally filed are nevertheless considered part of the disclosure. MPEP 608.01(l). As can be seen, this language contains the disclosure corresponding to the applicant’s explanation in its January 20, 2005 submission regarding a financial instrument’s “event specification.”

For purposes of clarity, applicant is amending paragraph [0071] of the specification to expressly incorporate the language “forming a timeline of inter-related event objects that is specific to the given static representation”, which has been copied verbatim from original claim 7. No new matter has been added.

Rejection Under 35 U.S.C. § 103 over Marshall and Garman

Claims 21-23 and 25-33 were rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall (US 5,675,746) in light of Garman (US 5,692,233).

Applicant has previously discussed Marshall at length. As applicant has pointed out, and the Examiner has accepted, Marshall does not disclose an event representation of a financial instrument wherein said representation is specified independently from at least one processor.

The Examiner has now cited Garman as reflecting a tool (“DerivaTool”) which, as described by the Examiner (citing Garman at pages 24-27), can describe a sequence of events associated with a financial instrument based upon static information (the market and price history) that is specified independently from at least one processor (simulator). The Examiner concludes that it would have been obvious to one of ordinary skill in the art to combine the “independence” aspect of Garman with the other features recited as to Marshall, so as to obviate all of the pending claims.

Applicant respectfully traverses this rejection.

Garman does not meet the claim limitation that the representation of the instrument “is specified independently from said at least one processor.” Specifically, while Garman does describe what may be considered an event representation as applicant defines that term, it appears that in Garman, the event representation is specified by writing expressions in a language called the “DerivaTool Expression Language,” or “DEL.” Garman, col. 4, lines 39-44. However, the DEL language is specifically adapted to driving a processor that performs Monte Carlo simulations (Garman, col. 3, lines 36-40, and page 34 (cols. 39-40), line 4).

Applicant refers the Examiner to Fig. 4B of Garman. According to the disclosure at col. 4, lines 34-41 of Garman, each row in a “scenario,” such as that depicted in Fig. 4B of Garman, comprises information relating to one “event.” As can be seen, the information shown in such scenario rows is represented by expressions written directly in the

DEL language, such as “BASEDATE(),” “GENCALC,” “PAYOFF,” “PAYCON,” “XPRICE(),” “ABSCON,” etc.

Contrary to what is recited in claim 21 (from which all of the currently pending claims in the present application depend), the representation of the instrument in Garman is specified with a view toward the processor that will process it, i.e., in the case of the disclosure of Garman, a Monte Carlo processor. In particular, the event specifications as written in DEL are tied to the processor that is going to be used to process the instrument, even to the extent that some of the parameters used in the “event specification” of Garman are actually the Monte Carlo simulation parameters. For example, “PAYOFF” is the formula to be evaluated by the simulator in the event the payoff contingency is found to occur; “PAYCON” is the payoff contingency; “ABSCON” is the “absorption contingency,” etc. The “event specification” as disclosed in Garman is in fact a set of processing instructions for the specific processor that is being used to process the instrument. The user even has to input the number of iterations to be run by the simulator (Garman, col. 6, line 52).

Furthermore, the aspect of the present invention “wherein said [financial instrument] representation is specified independently from said at least one processor” enables different processors for a financial instrument to be substituted without changing the manner in which the instrument must be specified. This aspect is discussed, in connection with the “independence” between instrument specification and processing, at paragraph [0037] of the present specification as published:

“To illustrate this point, consider a simple equity option. A value for this financial product can theoretically be calculated in several different ways. One could use the classic Black & Scholes formula, a probabilistic tree model or even a Monte Carlo simulation. Each methodology calculates the option’s value in a different way and hence one would expect slightly different results. However, even though the values differ, the structure and characteristics of the option do not change. ***It should be possible to use any of these valuation models on the exact same representation of the equity option. To accomplish this we require that the product model and valuation methodologies be independent of one another.***” (Emphasis added.)

Significantly, Garman does not in any way disclose or suggest that different types of processors could be substituted for the one shown, which is based on a Monte Carlo simulation, without affecting the manner in which event representations must be speci-

fied. Nor does Garman teach or suggest how this could be accomplished. As discussed on pages 2-3 above, it is also seen that the instrument specification described in Garman is written in terms and language that is specific to the processor that will process the instrument. For all these reasons, therefore, in no way could the event representation of a financial instrument, as manifested in Garman, be claimed to have been specified "independently" of the processor used to process the instruments, as recited in claim 21 of the present application.

Rejection of Claims 22-23 and 25-33

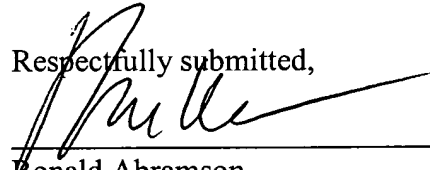
Since claim 21 should be deemed allowable over Marshall in view of Garman for the reasons given above, the remaining claims, i.e., claims 22-23 and 25-33, which each depend from claim 21, should be deemed allowable as well.

**CONCLUSION**

The applicant respectfully requests that the application as amended be reconsidered and allowed.

Dated: November 10, 2005

Respectfully submitted,



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Ronald Abramson  
Registration No. 34,762  
Attorney for Applicant

HUGHES HUBBARD & REED LLP  
One Battery Park Plaza  
New York, New York 10004-1482  
(212) 837-6404